

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 08037143  
PUBLICATION DATE : 06-02-96

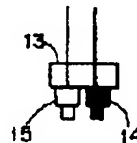
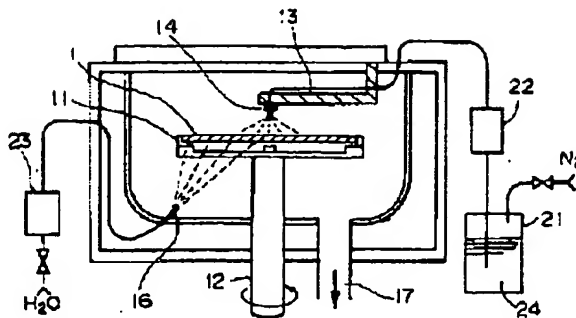
APPLICATION DATE : 25-07-94  
APPLICATION NUMBER : 06172646

APPLICANT : FUJI XEROX CO LTD;

INVENTOR : FURUYA YOSHIO;

INT.CL. : H01L 21/027 H01L 21/304 H01L 21/306

TITLE : SEMICONDUCTOR TREATMNT  
APPARATUS



ABSTRACT : PURPOSE: To successfully control temperature of a base material to execute highly reliable high speed treatment of substrate such as etching or developing by driving a thermal medium injecting mechanism to inject thermal medium to the rear surface of the base material to be treated prior to or during injection of treatment liquid.

CONSTITUTION: A glass substrate 1 is fixed to a chuck 11 of a rotary holding mechanism, a thermal medium injection nozzle 16 is driven while the rotating means 12 is rotated, the pure water as the thermal medium heated up to 45°C by a heat exchanger 23 is injected to the rear surface of the glass substrate 1 to heat the glass substrate 1 up to 45°C. Thereafter, while the pure water is continuously injected to the rear surface, the treatment liquid injecting mechanism is driven to inject the etching liquid heated up to 45°C by the heat exchanger 22 for the etching process. When the etching is completed, while the rotating means 12 is rotated, the rinse liquid is injected from the rinse liquid injection nozzle 15 for the washing. In this case, the injection of pure water is also continued from the rear surface.

COPYRIGHT: (C) JPO

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 08-037143

(43)Date of publication of application : 06.02.1996

(51)Int.Cl. H01L 21/027  
H01L 21/304  
H01L 21/306

(21)Application number : 06-172646

(71)Applicant : FUJI XEROX CO LTD

(22)Date of filing : 25.07.1994

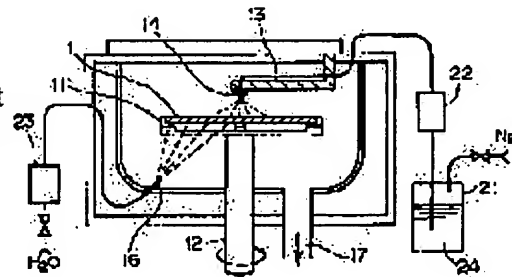
(72)Inventor : OKADA JUNJI  
FURUYA YOSHIO

## (54) SEMICONDUCTOR TREATMNT APPARATUS

### (57)Abstract:

**PURPOSE:** To successfully control temperature of a base material to execute highly reliable high speed treatment of substrate such as etching or developing by driving a thermal medium injecting mechanism to inject thermal medium to the rear surface of the base material to be treated prior to or during injection of treatment liquid.

**CONSTITUTION:** A glass substrate 1 is fixed to a chuck 11 of a rotary holding mechanism, a thermal medium injection nozzle 16 is driven while the rotating means 12 is rotated, the pure water as the terminal medium heated up to 45°C by a heat exchanger 23 is injected to the rear surface of the glass substrate 1 to heat the glass substrate 1 up to 45°C. Thereafter, while the pure water is continuously injected to the rear surface, the treatment liquid injecting mechanism is driven to inject the etching liquid heated up to 45°C by the heat exchanger 22 for the etching process. When the etching is completed, while the rotating means 12 is rotated, the rinse liquid is injected from the rinse liquid injection nozzle 15 for the washing. In this case, the injection of pure water is also continued from the rear surface.



## LEGAL STATUS

[Date of request for examination] 14.06.2000

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2000 Japan Patent Office